BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: Improvements to roads and drains at Manavarthi Thota, Kamakshamma layout layout Kondappa layout SC-ST areas in Ward No. 02 of Yelahanka Sub division

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
1	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No-27,I No-5.33)								
	For Drain Desilt	Sqm							
	Manavarthi Thota								
	Shamanna mane		1	50.00	0.75		37.50		
	Kamakshamma layout layout								
	BBMP Office Rd		2	210.00	0.90		378.00		
	Kere Kodi Road		2	350.00	0.75		525.00		
	AD colony Rd		1	260.00	0.75		195.00		
	Kondappa layout		1	210.00	0.90		189.00		
							1324.50		
	consider 50% for R & R						**662.25**		
	Deduct 30% for missing/damaged						397.35		
							662.25	111.30	**73708.43**
	Basic Rate Rs.=	105.00							
	Add 6% A.W Rs. =	6.30							
	Total Rate Rs. =	**111.30**							
2	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (P.No-143, I.No-19.1)								
	For RCC Drain	Cum							
	Manavarthi Thota								
	Near Corporator house		1	30.00	1.10	1.10	36.30		
	Kamakshamma layout								
	Kaka hotel to Masjid colony		1	190.00	1.20	1.10	250.80		
	For RCC Culvert		4	6.00	1.50	1.10	39.60		
	For Drain Desilt								
	Manavarthi Thota								
	Shamanna mane		1	50.00	0.60	0.50	15.00		
	Kamakshamma layout layout								
	BBMP Office Rd		2	210.00	0.60	0.50	126.00		
	Kere Kodi Road		2	350.00	0.45	0.50	157.50		
	AD colony Rd		1	260.00	0.45	0.50	58.50		
	Kondappa layout		1	210.00	0.60	0.50	63.00		
	Debris		1	81.00	1.50	0.30	36.54		
							783.24	215.28	**168615.91**
	Basic Rate Rs.=	130.00							
	Add 6% A.W Rs. =	7.80							
	Sub Total =	137.80							
	8Km Lead, Loading and Unloading =(2*1.28*8)+57	77.48							
	Total Rate Rs. =	**215.28**							
3	KSRRB M2100-10. Providing and laying Plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. (P.No-222,I No-27.18)								
	For Drain	Cum							
	Manavarthi Thota								
	Near Corporator house		1	30.00	1.10	0.15	4.95		
	Kamakshamma layout								
	Kaka hotel to Masjid colony		1	190.00	1.20	0.15	34.20		
	For RCC Culvert		4	6.00	1.50	0.15	5.40		

Sl No	Description of work	Unit	No	Length	Breadth	Depth	Quantity	Rate	Amount
				m	m	m		in Rs	in Rs
	For Concrete Road								
	Manavarthi Thota								
	Shamanna mane		1	50.00	3.50	0.15	26.25		
							70.80	5421.90	**383870.52**
	Basic Rate Rs.=	5115.00							
	Add 6% A.W Rs. =	306.90							
	Total Rate Rs. =	**5421.90**							
4	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. With 20mm and sown size granite metal course aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compcted for walls and bottom including centring shuttering cost of material HOM of machinary curing etc., complete execluding cost of steel as per MORTH specification no. 1500, 1700, 2200 including cost of material labour HOM complete as per specification. (P.No.271, I.No.37.59.2 of PW, P&IWTD S.R 2018-19)								
	For RCC Drain	Cum							
	Bottom slab								
	Manavarthi Thota								
	Near Corporator house		1	30.00	0.90	0.15	4.05		
	Kamakshamma layout								
	Kaka hotel to Masjid colony		1	190.00	1.10	0.15	31.35		
	side walls								
	Manavarthi Thota								
	Near Corporator house		2	30.00	0.15	0.65	5.85		
	Kamakshamma layout								
	Kaka hotel to Masjid colony		2	190.00	0.15	0.65	37.05		
							78.30		
	For RCC Culvert								
	Raft		4	6.00	1.20	0.20	5.76		
	side walls		8	6.00	0.20	0.60	5.76		
							11.52		
					Net Qty.		**89.82**	7070.20	**635045.36**
	Basic Rate Rs.=	6670.00							
	Add 6% A.W Rs. =	400.20							
	Total Rate Rs. =	**7070.20**							
5	KSRRB - M2300-14: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications.MORTH Specification No. 1600 & 2200 for TMT bars Fe 500. (P.No.239, I.No.29.29.2 of PW, P&IWTD S.R 2018-19)								
	Considering steel For Drain @ 70 kg / cum	Tonne		78.30	0.070	--	5.48		
	Considering steel For Culvert @ 100 kg / cum			11.52	0.100	--	1.15		
							6.63	73992.24	**490790.53**
	Basic Rate Rs.=	69804.00							
	Add 6% A.W Rs. =	4188.24							
	Total Rate Rs. =	**73992.24**							
6	Providing and fixing RCC precast cover slab of 100mm thick for drain in cement concrete 1:1.5:3 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	For drain cover slab	Sqm							
	Manavarthi Thota								
	Near Corporator house		1	30.00	0.75	--	22.50		
	Kamakshamma layout								
	Kaka hotel to Masjid colony		1	190.00	0.90	--	171.00		
	missing/damaged from item no.01						397.35		
							590.85	2337.00	**1380816.45**

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
7	Providing and fixing RCC precast cover slab of 250mm thick made out of CC 1:2:4 and jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	For Culvert Slabs	Sqm	4	6.00	1.20	--	**28.80**	5418.00	**156038.40**
8	KSRRB M200-24. Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials seperately complete as per specifications. MORTH Specification No. 202 with 8km lead= (I No-18.47,P No-140)								
	For Concrete Road	Cum							
	Manavarthi Thota								
	Shamanna mane		1	50.00	3.50	0.200	35.00		
							35.00	973.42	**34069.70**
	Basic Rate Rs.=	899.00							
	Add 6% A.W Rs. =	53.94							
	Sub Total =	952.94							
	8Km Lead, Loading and Unloading =(2*1.28*8)	20.48							
	Total Rate Rs. =	**973.42**							
9	Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30 with OPC at 360 kg/cum and coarse aggregate 0.69cum, fine aggregate 0.46cum. over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum,Coarse and fine aggregate conforming to IS:383-2016, with Superplastizer at 3 lts conforming to IS 9103-2008. mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints,including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine, and curing including cost of all materials, labour,hire charges of machineries,all lead & lift charges etc., complete as per specifications. (P.No-176,I No-22.6.1)								
	For Concrete Road	Cum							
	Manavarthi Thota								
	Shamanna mane		1	50.00	3.50	0.15	26.25		
							26.25	5210.96	**136787.70**
	Basic Rate Rs.=	4916.00							
	Add 6% A.W Rs. =	294.96							
	Total Rate Rs. =	**5210.96**							
10	Vaccum De- writing with vaccum pump and suction mat and compaction with skin flater clubbed with floatiog disc including cost of generator, HOM of machinery Sereed Vibratory Power Floaterblade and diisc etc. with all lead and lift. (Page No 176 Item No 22.7)								
	For Concrete Road	Sqm							
	Manavarthi Thota								
	Shamanna mane		1	50.00	3.50		175.00		
							175.00	72.08	**12614.00**
	Basic Rate Rs.=	68.00							
	Add 6% A.W Rs. =	4.08							
	Total Rate Rs. =	**72.08**							
11	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)								
	For Asphalt Road, Bad Reach	Cum							
	Manavarthi Thota								
	Pump house Road		1	80.00	2.20	0.15	26.40		

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
	Kamakshamma layout								
	BBMP Office Rd		1	210.00	2.00	0.15	63.00		
	Kere Kodi Road		1	350.00	2.00	0.15	105.00		
	AD colony Rd		1	260.00	1.20	0.15	46.80		
							241.20	1994.92	**481174.70**
	Basic Rate Rs.=	1882.00							
	Add 6% A.W Rs. =	112.92							
	Total Rate Rs. =	**1994.92**							
12	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)								
	For Asphalt Road, Bad Reach	Cum							
	Manavarthi Thota								
	Pump house Road		1	80.00	2.20	0.230	40.48		
	Kamakshamma layout								
	BBMP Office Rd		1	210.00	2.00	0.230	96.60		
	Kere Kodi Road		1	350.00	2.00	0.230	161.00		
	AD colony Rd		1	260.00	1.20	0.230	71.76		
							369.84	2001.28	**740153.40**
	Basic Rate Rs.=	1888.00							
	Add 6% A.W Rs. =	113.28							
	Total Rate Rs. =	**2001.28**							
13	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)								
	For Asphalt Road, Bad Reach	Sqm							
	Manavarthi Thota								
	Pump house Road		1	80.00	2.20		176.00		
	Kamakshamma layout								
	BBMP Office Rd		1	210.00	2.00		420.00		
	Kere Kodi Road		1	350.00	2.00		700.00		
	AD colony Rd		1	260.00	1.60		416.00		
	For Asphalt Road, Profile corrn								
	Manavarthi Thota								
	Pump house Road		0.40	80.00	5.60		179.20		
	Kamakshamma layout								
	BBMP Office Rd		0.40	210.00	6.80		571.20		
	Kere Kodi Road		0.40	350.00	7.40		1036.00		
	AD colony Rd		0.40	260.00	4.00		416.00		
							3914.40	33.92	**132776.45**
	Basic Rate Rs.=	32.00							
	Add 6% A.W Rs. =	1.92							
	Total Rate Rs. =	**33.92**							
14	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-160,I No-21.17.6)								
	For Asphalt Road, Bad Reach	Cum							
	Manavarthi Thota								
	Pump house Road		1	80.00	2.20	0.05	8.80		
	Kamakshamma layout								
	BBMP Office Rd		1	210.00	2.00	0.05	21.00		
	Kere Kodi Road		1	350.00	2.00	0.05	35.00		
	AD colony Rd		1	260.00	1.60	0.05	20.80		
	For Asphalt Road, Profile corrn								
	Manavarthi Thota								

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amoun in Rs
	Pump house Road								
	Kamakshamma layout		0.40	80.00	5.60	0.05	8.96		
	BBMP Office Rd								
	Kere Kodi Road		0.40	210.00	6.80	0.05	28.56		
	AD colony Rd		0.40	350.00	7.40	0.05	51.80		
			0.40	260.00	4.00	0.05	20.80		
	Basic Rate Rs.=	7008.00					**195.72**	7428.48	**1453902.**
	Add 6% A.W Rs. =	420.48							
	Total Rate Rs. =	**7428.48**							
15	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7)								
	For Asphalt Road	Sqm							
	Manavarthi Thota								
	Pump house Road								
	Kamakshamma layout		1.00	80.00	5.60		448.00		
	BBMP Office Rd								
	Kere Kodi Road		1.00	210.00	6.80		1428.00		
	AD colony Rd		1.00	350.00	7.40		2590.00		
			1.00	260.00	4.00		1040.00		
	Basic Rate Rs.=	12.00					**5506.00**	12.72	**70036.3**
	Add 6% A.W Rs. =	0.72							
	Total Rate Rs. =	**12.72**							
16	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015. using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic)(P.No-171,I No-21.78.12)								
	For Asphalt Road	Cum							
	Manavarthi Thota								
	Pump house Road		1.00	80.00	5.60	0.04	17.92		
	Kamakshamma layout								
	BBMP Office Rd		1.00	210.00	6.80	0.04	57.12		
	Kere Kodi Road		1.00	350.00	7.40	0.04	103.60		
	AD colony Rd		1.00	260.00	4.00	0.04	41.60		
							220.24	8699.42	**1915960.26**
	Basic Rate Rs.=	8207.00							
	Add 6% A.W Rs. =	492.42							
	Total Rate Rs. =	**8699.42**							
17	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	For Asphalt Road	Sqm							
	Manavarthi Thota								
	Pump house Road		2	80.00	0.10		16.00		
	Kamakshamma layout								
	BBMP Office Rd		2.5	210.00	0.10		52.50		
	Kere Kodi Road		2.5	350.00	0.10		87.50		
	AD colony Rd		2.5	260.00	0.10		65.00		
							221.00	454.74	**100497.54**
	Basic Rate Rs.=	429.00							
	Add 6% A.W Rs. =	25.74							
	Total Rate Rs. =	**454.74**							
							Sub Total 1 Rs.		**8366857.77**
	Add GST @ 12%								**1004022.93**

Sl No	Description of work	Unit	No	Length	Breadth	Depth	Quantity	Rate	Amou
				m	m	m		in Rs	in Rs
	Add KRIDL @ 4%								33467
	DPR & PMC Charges including GST								19400
								Sub Total 2 Rs.	989955
	Miscellaneous & Rounding off								444
								Total Rs.	990000

CERTIFICATE:

1 The work spot has been inspected by me and the work is found to be necessary.
2 The estimate is prepared as per PW, P&IWTD S.R Bangalore circle for the year 2018-2019.
3 The Provisions made in the estimate are quite necessary and adequate.
4 The area comes with in the BBMP limits.

Assistant Engineer
Ward 02
BBMP

Assistant Executive Engineer
Yelahanka Sub Division
BBMP

Executive Engineer
Yelahanka Division
BBMP

Administrative Sanction for Rs. 99.00 Lakhs
Ninety Nine Lakhs only
is accorded under head P-3727 2018-19.
Chief Minister Nava Nagarothana grants
Registered as Cr. No
to conduct [illegible] Subject
No. EE/YNK/AS/36/2019-20 28/10/2019

Executive Engineer

Technical Sanction
Accorded For RS99.00 lacs only
Head of A/C P3727
CER NO :124 Dt:28.10.20

TA — CE (YNK)

Ch:50m

Ch:0m

Shamanna House

Pump House Rd

Ch:80m

Ch:190m

Manavarthi thota

Ch:0m

Ch:0m

Ch:0m

Kaka hotel turning
to mazid colony

Kere kodi Road

BBMP OFFICE ROAD

Kamakshamma
Layout

Ch:0m

AD Colony Road

Ch:260m

Ch:350m

Ch:210m

Road

Asst. Executive Engineer
Yelahanka Sub. Divison
(BBMP Ynk. Zn)
Yelahanka, Bangalore

BRUHAT BANGALORE MAHANAGARA PALIKE

RCC CULVERT
RCC DRAIN
ASPHALT ROAD
C C ROAD